CLAIMS

1. A signal processing apparatus for adjusting levels of continuously arranged signals, said signal processing apparatus characterized by comprising:

designation means for designating the continuously arranged signals as a signal of attention one

by one;

determination means for determining a predetermined number of signals preceding the signal of attention designated by the designation means, and a predetermined number of signals following the signal of attention, to be neighbouring signals;

weight average means for averaging by weight the signal of attention and the plurality of neighbouring signals;

flag setting means for calculating a difference in levels between the signal of attention and a neighbouring signal, judging whether or not the difference is larger than a predetermined threshold value, and raising flags for the neighbouring signal and a neighbouring signal which are arranged symmetrically with respect to the signal of attention, when the difference is judged to be larger than the predetermined threshold value; and

control means for controlling and causing the weighted average means to average by weight, using the signal of attention instead of the neighbouring signal for which the flag is raised.

2. The signal processing apparatus as described in claim 1, characterized in that said flag setting means further raises a flag for a neighboring pixel away, in view of the pixel of attention, from the neighboring pixels raised with flags.

3. The signal processing apparatus as described in claim 1,

characterized in that said signals are pixel values of pixels constituting an image.

4. A signal processing method for adjusting levels of continuously arranged signals, said signal processing method characterized by comprising:

a designation step of designating continuously arranged signals as a signal of attention one by one;

a determination step of determining a predetermined number of signals preceding the signal of attention designated by way of the designation step, and a predetermined number of signals following the signal of attention, to be neighbouring signals;

a weight average step of averaging by weight the signal of attention and the plurality of neighbouring signals;

a flag setting step of calculating a difference in levels between the signal of attention and a neighbouring signal, judging whether or not the difference is larger than a predetermined threshold value, and raising flags for the neighbouring signal and a neighbouring signal which are arranged symmetrically with respect to the signal of attention, when the difference is judged to be larger than the predetermined threshold value; and

a control step of controlling and causing a process in the weighted average step to average by weight, using the signal of attention instead of the neighbouring signal for which the flag is raised.

5. A recording medium having a program for adjusting levels of continuously arranged signals, said program characterized by comprising:

a designation step of designating continuously arranged signals as a signal of attention one by one;

a determination step of determining a predetermined number of signals preceding the signal of attention designated by way of the

designation step, and a predetermined number of signals following the signal of attention, to be neighbouring signals;

a weight average step of averaging by weight the signal of attention and the plurality of neighbouring signals;

a flag setting step of calculating a difference in levels between the signal of attention and a neighbouring signal, judging whether or not the difference is larger than a predetermined threshold value, and raising flags for the neighbouring signal and a neighbouring signal which are arranged symmetrically with respect to the signal of attention, when the difference is judged to be larger than the predetermined threshold value; and

a control step of controlling and causing a process in the weighted average step to average by weight, using the signal of attention instead of the neighbouring signal for which the flag is raised.

6. A program for adjusting levels of continuously arranged signals, said program characterized by comprising:

a designation step of designating continuously arranged signals as a signal of attention one by one;

a determination step of determining a predetermined number of signals preceding the signal of attention designated by way of the designation step, and a predetermined number of signals following the signal of attention, to be neighbouring signals;

a weight average step of averaging by weight the signal of attention and the plurality of neighbouring signals;

a flag setting step of calculating a difference in levels between the signal of attention and a neighbouring signal, judging whether or not the difference is larger than a predetermined threshold value, and raising flags for the neighbouring signal and a neighbouring signal which are arranged symmetrically with respect to the signal of attention, when the difference is judged to be larger than the predetermined threshold value;

and

a control step of controlling and causing a process in the weighted average step to average by weight, using the signal of attention instead of the neighbouring signal for which the flag is raised.